SEQUENCE LISTING

<110> Somerville, Chris R Scheible, Wolf

<120> MODIFIED CELLULOSE SYNTHASE GENE FROM ARABDOPSIS THALIANA CONFERS HERBICIDE RESISTANCE TO PLANTS

<130> S-103,779

<150> 60/159,369 (Provisional)

<151> 1999-10-14

<150> 09/686,234

<151> 2000-10-11

<160> 32

<170> PatentIn version 3.2

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Gly Asp Arg Phe Val Ala Cys Asp Ile Cys Ser Phe Pro Val Cys Arg 35 40 45

Pro Cys Tyr Glu Tyr Glu Arg Lys Asp Gly Asn Gln Ser Cys Pro Gln 50 55 60
Cys Lys Thr Arg Tyr Lys Arg Leu Lys Gly Ser Pro Ala Ile Pro Gly 65 70 75 80
Asp Lys Asp Glu Asp Gly Leu Ala Asp Glu Gly Thr Val Glu Phe Asn 85 90 95
Tyr Pro Gln Lys Glu Lys Ile Ser Glu Arg Met Leu Gly Trp His Leu 100 105 110
Thr Arg Gly Lys Gly Glu Glu Met Gly Glu Pro Gln Tyr Asp Lys Glu 115 120 125
Val Ser His Asn His Leu Pro Arg Leu Thr Ser Arg Gln Asp Thr Ser 130 135 140
Gly Glu Phe Ser Ala Ala Ser Pro Glu Arg Leu Ser Val Ser Ser Thr 145 150 155 160
Ile Ala Gly Gly Lys Arg Leu Pro Tyr Ser Ser Asp Val Asn Gln Ser 165 170 175
Pro Asn Arg Arg Ile Val Asp Pro Val Gly Leu Gly Asn Val Ala Trp 180 185 190
Lys Glu Arg Val Asp Gly Trp Lys Met Lys Gln Glu Lys Asn Thr Gly 195 200 205
Pro Val Ser Thr Gln Ala Ala Ser Glu Arg Gly Gly Val Asp Ile Asp 210 215 220

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Arg Gln Pro Leu Ser Arg Lys Val Ser Ile Pro Ser Ser Arg Ile Asn 245 250 255
Pro Tyr Arg Met Val Ile Met Leu Arg Leu Val Ile Leu Cys Leu Phe 260 265 270
Leu His Tyr Arg Ile Thr Asn Pro Val Pro Asn Ala Phe Ala Leu Trp 275 280 285
Leu Val Ser Val Ile Cys Glu Ile Trp Phe Ala Leu Ser Trp Ile Leu 290 295 300
Asp Gln Phe Pro Lys Trp Phe Pro Val Asn Arg Glu Thr Tyr Leu Asp 305 310 315 320
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Ala Val Asp Ile Phe Val Ser Thr Val Asp Pro Leu Lys Glu Pro Pro 340 345 350
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Val Asp Lys Val Ser Cys Tyr Val Ser Asp Asp Gly Ala Ala Met Leu 370 375 380
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Trp Val Met Gln Asp Gly Thr Pro Trp Pro Gly Asn Asn Thr Arg Asp 465 470 475 480
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Ala Glu Gly Asn Glu Leu Pro Arg Leu Val Tyr Val Ser Arg Glu Lys 500 505 510
Arg Pro Gly Phe Gln His His Lys Lys Ala Gly Ala Met Asn Ala Leu 515 520 525
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Asp Cys Asp His Tyr Ile Asn Asn Ser Lys Ala Leu Arg Glu Ala Met 545 550 555 560 Cys Phe Leu Met Asp Pro Asp Leu Gly Lys Glp Val Cys Tyr Val Glp
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Phe Pro Gln Arg Phe Asp Gly Ile Asp Lys Asn Asp Arg Tyr Ala Asn 580 585 .590

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Ile Pro L 850	eu Leu Met Ty 855	r Cys Thr Leu 860	Pro Ala Val Cys	s Leu Phe Thr
Asn Gln 865	Phe Ile Ile Pro 870	Gln Ile Ser As 875	n Ile Ala Ser Ile 880	Trp Phe
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Leu Lys 930	Val Leu Ala G 935	y Ile Asp Thr 940	Asn Phe Thr Va	l Thr Ser Lys
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Lys Leu Pro Ala Phe Lys Gly Ser Ala Pro Ile Asn Leu Ser Asp Arg

Thr Thr Leu Leu Ile Pro Pro Thr Thr Leu Leu Ile Val Asn Leu Val 965 970 975

Gly Val Val Ala Gly Val Ser Tyr Ala Ile Asn Ser Gly Tyr Gln Ser 980 985 990

Trp Gly Pro Leu Phe Gly Lys Leu Phe Phe Ala Phe Trp Val Ile Val 995 1000 1005

His Leu Tyr Pro Phe Leu Lys Gly Leu Met Gly Arg Gln Asn Arg 1010 1015 1020

Thr Pro Thr Ile Val Val Val Trp Ser Val Leu Leu Ala Ser Ile 1025 1030 1035

Phe Ser Leu Leu Trp Val Arg Ile Asp Pro Phe Thr Ser Arg Val 1040 1045 1050

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19

<210> 9

<211> 19

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<210> 23

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<212> DNA

<213> Arabidopsis thaliana

<400> 23

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acagaccgat caggtcaaaa gaaagccgta aagaaaatcc aacttaaaat aaaaataaaa 300

tctcttttac caaacagata tacagagaga cttcaatcag aggaaataaa taaatttcat 360

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